

Notice of Allowability

Application No.

10/690,652

Applicant(s)

AUSCHRA ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 7/31/06 and telephonic interview conducted 10/13/06.
2. ☒ The allowed claim(s) is/are 20 and 21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/869,549.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient..
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>10/13/06</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

(1) In the specification, page 1, first line, after "June 29, 2001," and before "which", insert "now abandoned,".

(2) Claim 20, line 17, after "acrylic or methacrylic acid-hydroxy-C₂-C₄-alkyl esters," and before "or", delete "acrylic" and insert "acrylamide".

(3) Claim 20, line 31, after "replacing" and before "with", delete "X" and insert "the halogen in formula (II)".

(4) Claim 20, line 32, after "group" and before "and", delete "X¹".

(5) Claim 21, line 17, after "acrylic or methacrylic acid-hydroxy-C₂-C₄-alkyl esters," and before "or", delete "acrylic" and insert "acrylamide".

2. Authorization for this examiner's amendment was given in a telephone interview with Joseph Suhadolnik on 10/13/06.

Statement of Reasons for Allowance

3. Prior to setting forth the Reasons for Allowance, it is noted that in the previous office action mailed 3/31/06, while paragraph 1 of the office action correctly indicated that the action was non-final, the Office Action Summary (PTO- 326) inadvertently incorrectly noted that the action was final. In response, applicants filed after-final amendment on 7/31/06. However, given that the status of the office action, which was correctly recognized by the PTO, was non-final, applicants' amendment filed 7/31/06 was not considered as an after-final amendment but rather as an amendment filed after a non-final action.

The present claims are allowable over the "closest" prior art Percec (U.S. 5,886,118), Pearlstine et al. (U.S. 6,087,416), Kappeler et al. (U.S. 6,063,834), Matyjaszewski et al. '937 (U.S. 5,807,937), Spinelli (U.S. 5,772,741), and Matyjaszewski et al. '060 (U.S. 6,512,060) for the following reasons:

Percec discloses process for preparing composition comprising adding pigment and other additives such as dye and stabilizers to the block copolymer wherein the block copolymer is obtained from acrylonitrile and co-monomer such as (meth)acrylic acid. The block polymer is prepared by copolymerizing, by living polymerization, the monomers in the presence of initiator and catalyst wherein the initiator includes aryl sulfonyl halide and halopropionitrile and then replacing the halogen of the initiator with polymer chain terminal group. However, there is no disclosure or suggestion in Percec of block polymer of the formula $(In)_p-[A_x-B_y]-X_q$ wherein polymer block A consists of repeating units of acrylic or methacrylic acid C_1-C_{24} alkyl esters and polymer block B consists of repeating units of acrylic or methacrylic acid C_1-C_{24} alkyl esters

which are copolymerized with at least 50% by weight monomers carrying functional groups as now required in each of present claim 20 and present claim 21.

Pearlstine et al. and Kappel et al. each disclose process for preparing composition comprising adding pigment to block copolymer dispersant wherein the block copolymer dispersant disperses the pigment in liquid vehicle and then adding the pigment dispersant to additional ingredients. However, there is no disclosure or suggestion in either Pearlstine et al. or Kappel et al. of block copolymer of the formula $(In)_p-[A_x-B_y]-X_q$ as required in each of present claim 20 and present claim 21. Further, there is no disclosure in either Pearlstine et al. or Kappel et al. of method comprising copolymerizing by atom transfer radical polymerization fragments A and B in the presence of polymerization initiator as required in present claim 20.

Matyjaszewski et al. '937 disclose block copolymer produced by atom transfer radical polymerization which has the structure $A-(M^1)_p-(M^2)_q-X$ where A, which corresponds to presently claimed In, is a residue of an initiator wherein the initiator includes alkyl halide, M^1 and M^2 , which correspond to presently claimed A and B, are blocks obtained from monomers including (meth)acrylates, and X is halide which is usually replaced with polymer chain terminal group. It is further disclosed that the block copolymer is produced by copolymerizing fragments M^1 and M^2 in presence of initiator and catalyst and then replacing the halogen of the initiator with different polymer chain terminal group. However, there is no disclosure in Matyjaszewski et al. '937 of block polymer comprising polymer block M^1 (A) consisting of repeating units of acrylic or methacrylic acid C_1-C_{24} alkyl esters and polymer block M^2 or (B) consisting of repeating units of acrylic or methacrylic acid C_1-C_{24} alkyl esters which are copolymerized with at least 50% by weight monomers carrying functional groups as now required in each of present

claim 20 and present claim 21. Further, there is no disclosure in Matyjaszewski et al. '937 of pigment as required in all present claims and thus, no disclosure of process for preparing pigment dispersion as required in present claim 21.

Spinelli discloses process for preparing composition comprising adding block copolymer dispersant to pigment particles to form pigment dispersion and then adding pigment dispersion to additional ingredients. However, there is no disclosure or suggestion in Spinelli of block copolymer of the formula $(In)_p-[A_x-B_y]-X_q$ as required in each of present claim 20 and present claim 21. Further, there is no disclosure of method comprising copolymerizing by atom transfer radical polymerization fragments A and B in the presence of polymerization initiator as required in present claim 20.

Matyjaszewski et al. '060 disclose block copolymer produced by atom transfer radical polymerization wherein the block copolymer is obtained from hydrophilic monomer and hydrophobic monomer. It is further disclosed that the block copolymer is produced by copolymerizing the monomers in the presence of initiator such as halopropionate and catalyst and then replacing the halogen of the initiator with different polymer chain terminal group. However, there is no disclosure in Matyjaszewski et al. '060 of block polymer comprising polymer block A consisting of repeating units of acrylic or methacrylic acid C_1-C_{24} alkyl esters and polymer block B consisting of repeating units of acrylic or methacrylic acid C_1-C_{24} alkyl esters which are copolymerized with at least 50% by weight monomers carrying functional groups as now required in each of present claim 20 and present claim 21. Further, there is no disclosure in Matyjaszewski et al. '060 of pigment as required in all present claims and thus, no disclosure of process for preparing pigment dispersion as required in present claim 21.

Thus, it is clear that Percec, Pearlstine et al., Kappele et al., Matyjaszewski et al. '937, Spinelli, and Matyjaszewski et al. '060, either alone or in combination, do not disclose the present invention.

Further, applicants' amendment filed 7/31/06 overcomes the claim objection and 35 USC 112, second paragraph rejections of record.

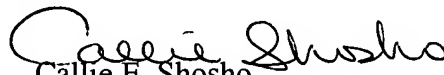
In light of the above, it is clear that the rejections of record are untenable and so, the present claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Callie E. Shosho
Primary Examiner
Art Unit 1714

CS
10/13/06